National Semiconductor

LM330 3-Terminal Positive Regulator

General Description

The LM330 5V 3-terminal positive voltage regulator features an ability to source 150 mA of output current with an input-output differential of 0.6V or less. Familiar regulator features such as current limit and thermal overload protection are also provided.

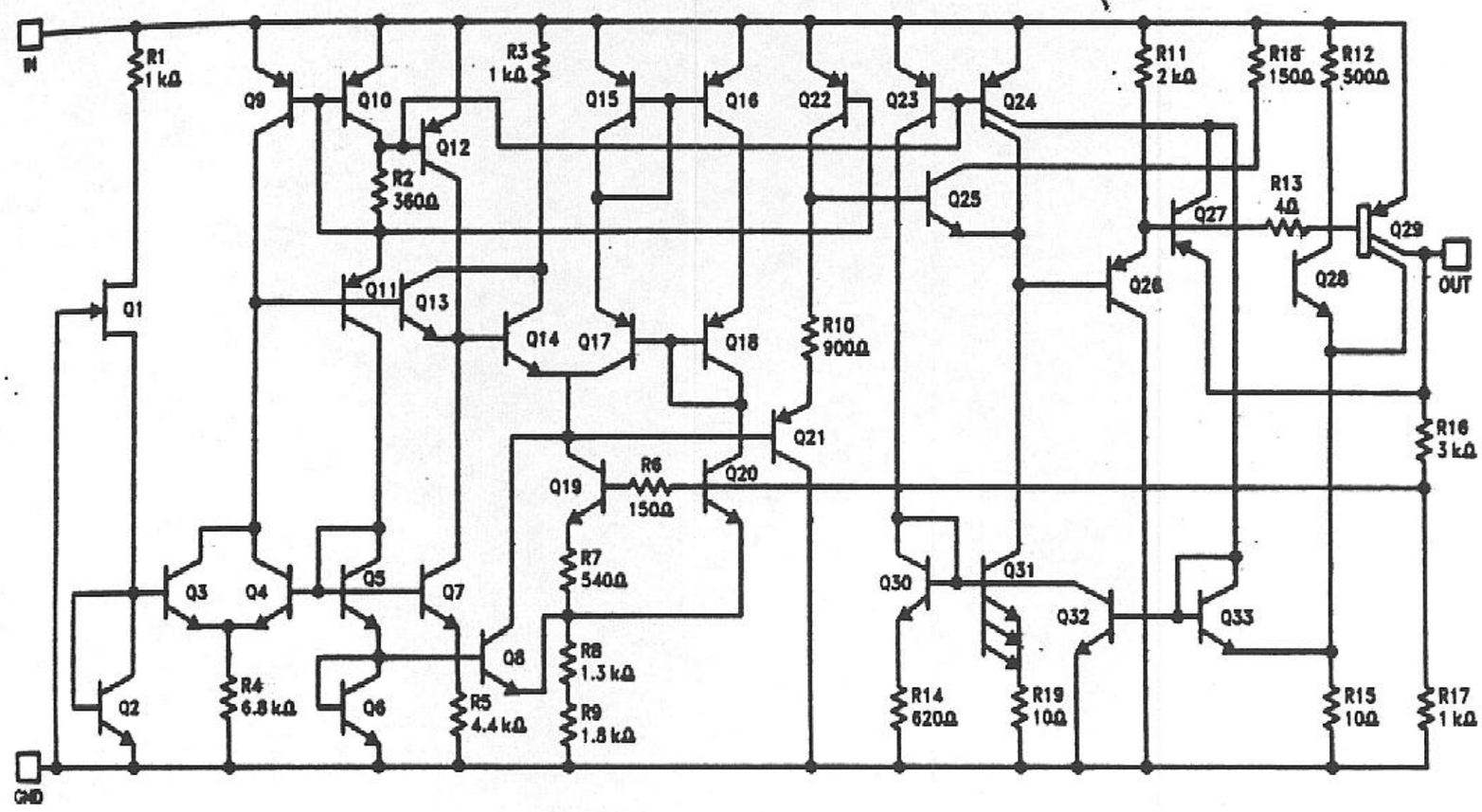
The low dropout voltage makes the LM330 useful for certain battery applications since this feature allows a longer battery discharge before the output falls out of regulation. For example, a battery supplying the regulator input voltage may discharge to 5.6V and still properly regulate the system and load voltage. Supporting this feature, the LM330 protects both itself and regulated systems from negative voltage inputs resulting from reverse installations of batteries.

Other protection features include line transient protection up to 26V, when the output actually shuts down to avoid damaging internal and external circuits. Also, the LM330 regulator cannot be harmed by a temporary mirror-image insertion.

Features

- Input-output differential less than 0.6V
- Output current of 150 mA
- Reverse battery protection
- Line transient protection
- Internal short circuit current limit
- Internal thermal overload protection
- Mirror-image insertion protection
- 100% electrical burn-in in the thermal limit

Schematic and Connection Diagrams



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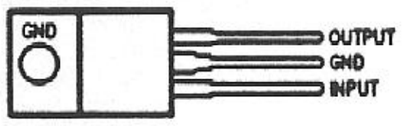
(TO-220)
Plastic Package



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Front View

Order Number LM330T-5.0
See NS Package Number T03B